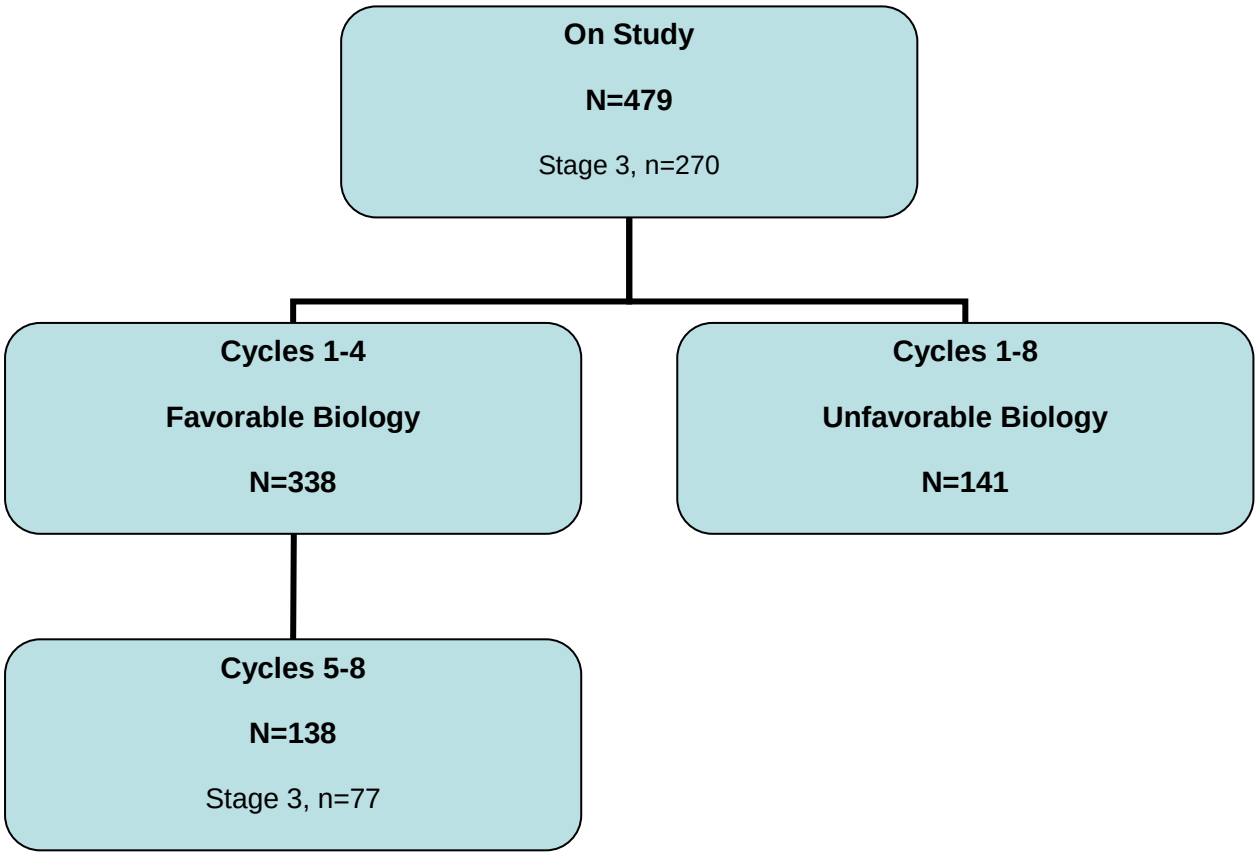
Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Baker DL, Schmidt ML, Cohn SL, et al. Outcome after reduced chemotherapy for intermediate-risk neuroblastoma. N Engl J Med 2010;363:1313-23.

Supplemental Figure 1. Treatment of intermediate risk patients on A3961. There were 479 eligible patients entered with intermediate risk neuroblastoma, who all had *MYCN* non-amplified tumors, including infants <365 days old with stage 3 and 4, children over one year old with stage 3 disease and favorable histopathology and stage 4S infants with diploid DNA index or unfavorable histopathology. Patients with favorable histopathology and hyperdiploidy were assigned 4 cycles of chemotherapy, and those with incomplete response or unfavorable biology were assigned 8 cycles. Favorable biology was defined as patients whose tumor was MYCN non-amplified, with a DNA index >1, and favorable histology; unfavorable biology tumors were MYCN non-amplified, and had a DNA index =1, or unfavorable histology, or both. There were 15 patients with missing DNA index or histology, but without amplification of *MYCN* who were treated in the favorable category.



Supplementary Table 1. International Neuroblastoma Staging System

Stage	Definition
1	Localized tumor with complete gross excision, with or without microscopic residual disease; representative ipsilateral lymph nodes negative for tumor microscopically.
2A	Localized tumor with incomplete gross excision; representative ipsilateral lymph nodes negative for tumor microscopically.
2B	Localized tumor with or without complete gross excision, with ipsilateral lymph nodes positive for tumor. Enlarged contralateral lymph nodes must be negative microscopically.
3	Unresectable unilateral tumor infiltrating across the midline, with or without regional lymph node involvement; or localized unilateral tumor with contralateral regional lymph node involvement; or midline tumor with bilateral extension by infiltration (unresectable) or by lymph node involvement.
4	Any primary tumor with dissemination to distant lymph nodes, bone, bone marrow, liver, and other organs (except as defined for stage 4S)
4S	Localized primary tumor (as defined as Stage 1, 2A, or 2B), in patient <1 year, with dissemination limited to skin, liver, and/or bone marrow (marrow involvement should be minimal with malignant cells <10% of total nucleated cells)

From Brodeur GM, Seeger RC, Barrett A, Berthold F, et al. International criteria for diagnosis, staging, and response to treatment in patients with neuroblastoma [see comments]. J Clin Oncol 1988;6(12):1874-81; and Brodeur GM, Pritchard J, Berthold F, Carlsen NL, et al. Revisions of the international criteria for neuroblastoma diagnosis, staging, and response to treatment [see comments]. J Clin Oncol 1993;11(8):1466-77.

Supplementary Table 2. Evaluation of extent of disease and response following the International criteria for protocol A3961.

Site	Test	Complete Response	Very Good Partial Response	Partial Response	Mixed Response	Stable Disease	Progressive Disease
Primary	CT or MRI with 3D measurements	No tumor	>90% reduction in 3D tumor volume	50-90% reduction in 3D tumor volume	50-90% reduction in any measurable lesion; no new lesions; no increase in size of any lesion by >25%; exclude bone marrow evaluation	no new lesions; no increase in size of any lesion by >25%; exclude bone marrow evaluation	Any new lesion; increase in size of any lesion by >25%; previously negative bone marrow now positive for tumor
Metastases	Bilateral Bone Marrow Aspirate & Biopsy	No tumor	No tumor	No tumor or only one sample with tumor			
	Bone Xrays and scintigraphy (^{131}I- or ^{123}I-MIBG scan or ^{99}Te scan)	No lesion	No lesions MIBG; all improved on Te	All lesions improved, no new lesions			
	Liver imaging (US, CT or MRI)	No tumor	No tumor	50-90% reduction			
	Chest xray, CT if Xray abnormal	No tumor	No tumor	50-90% reduction			
	Physical Exam	Normal	Normal	50-90% reduction			
Tumor Marker	Urine HVA, VMA	Normal	Normal	50-90% reduction			

Revised from Brodeur GM, Seeger RC, Barrett A, Berthold F, et al. International criteria for diagnosis, staging, and response to treatment in patients with neuroblastoma [see comments]. J Clin Oncol 1988;6(12):1874-81; and Brodeur GM, Pritchard J, Berthold F, Carlsen NL, et al. Revisions of the international criteria for neuroblastoma diagnosis, staging, and response to treatment [see comments]. J Clin Oncol 1993;11(8):1466-7

Supplementary Table 3. Neuroblastoma risk assignment by the Children's Oncology Group 1997-2005.

Risk	INSS	Age (days)	*MYCN*	Histology**	DNA Index	Biology Category
Low	1	Any	Any	Any	Any	
	2A/2B	<365	Any	Any	Any	
	2A/2B	≥365	Non-Amplified	Any	-	
	2A/2B	≥365	Amplified	FH	-	
	4S	<365	Non-Amplified	FH	>1	
Intermediate	3	<365	Non-Amplified	FH	>1	F
	3	≥365	Non-Amplified	FH	-	F
	4	<365	Non-Amplified	FH	>1	F
	3	<365	Non-Amplified	UH	>1	U
	3	<365	Non-Amplified	Any	≤1	U
	4	<365	Non-Amplified	UH	>1	U
	4	<365	Non-Amplified	Any	≤1	U
	4S	<365	Non-Amplified	Any	≤1	U
	4S	<365	Non-Amplified	UH	Any	U
High	2	≥365	Amplified	UH	-	
	3	Any	Amplified	Any	Any	
	4S	<365	Amplified	Any	Any	
	4	Any	Amplified	Any	Any	
	3	≥365	Non-Amplified	UH	-	
	4	≥365	Non-Amplified	Any	-	

Abbreviations: FH, Favorable histology by the Shimada classification; **UH,** unfavorable histology by the Shimada classification; **F,** favorable biology category for treatment assignment to 4 cycles of chemotherapy, **U,** unfavorable biology category for treatment assignment to 8 cycles of chemotherapy.

****Shimada histology classification**: Favorable histology (FH) groups regardless of age are ganglioneuromas and ganglioneuroblastomas (intermixed). Other patients with FH have age <18 months with poorly differentiated or differentiating and low or intermediate mitotic-karyorrhexis index (MKI of <200 per 5000 cells) tumors, or have age 18 months to 5 years with differentiating and low MKI (<100 per 5000 cells) tumors. Ganglioneuroblastoma with nodular appearance is an unfavorable histology (UH) independent of age. Patients with UH neuroblastomas have age <18 months with undifferentiated tumors or high MKI (>200), or have age 18 months to 5 years with undifferentiated or poorly differentiated tumors, or have intermediate or high MKI tumors (>100). Patient with neuroblastoma with age greater than 5 years all have UH. (Shimada H, Chatten J, Newton WA, Jr., et al. Histopathologic prognostic factors in neuroblastic tumors: definition of subtypes of ganglioneuroblastoma and an age-linked classification of neuroblastomas. J Natl Cancer Inst 1984;73(2):405-16.)

Supplementary Table 4. Patient characteristics (n=464)*

Characteristic	Stage 3, Favorable biology	Stage 3, Unfav biology	Stage 4, Favorable biology	Stage 4, Unfav biology	Stage 4s, Unfav biology
Total patients	**221**	**38**	**102**	**72**	**31**
Median age (months)	10.7	5.4	5.3	7.3	3.0
	N (%)	N (%)	N (%)	N (%)	N (%)
Sex					
Male	112 (50.7)	22 (57.9)	46 (45.1)	34 (47.2)	22 (71.0)
Female	109 (49.3)	16 (42.1)	56 (54.9)	38 (52.8)	9 (29.0)
Primary site					
abdominal-adrenal	45 (20.4)	5 (13.2)	61 (59.8)	33 (45.8)	28 (90.3)
abdominal-other	53 (24.0)	8 (21.1)	8 (7.8)	10 (13.9)	0 (0)
other-specify	33 (14.9)	7 (18.4)	7 (6.9)	11 (15.3)	1 (3.2)
pelvis	34 (15.4)	7 (18.4)	4 (3.9)	1 (1.4)	0 (0)
chest	24 (10.9)	4 (10.5)	8 (7.8)	4 (5.6)	0 (0)
thoracoabdominal	14 (6.3)	4 (10.4)	9 (8.8)	3 (4.2)	0 (0)
abdominal-celiac	11 (4.9)	2 (5.3)	1 (1.0)	3 (4.2)	0 (0)
neck	5 (2.2)	1 (2.6)	4 (3.9)	4 (5.6)	1 (3.2)
unknown	0 (0)	0 (0)	0 (0)	1 (1.4)	1 (3.2)
null	2 (0.9)	0 (0)	0 (0)	2 (2.8)	0 (0)
Metastatic site[#]					
bone marrow	0 (0)	0 (0)	51 (50.0)	43 (59.7)	14 (45.2)
bone	0 (0)	1 (2.6)	29 (28.4)	28 (38.9)	1 (3.2)
intracranial	0 (0)	0 (0)	9 (8.8)	7 (9.7)	0 (0)
neck	0 (0)	0 (0)	4 (3.9)	5 (6.9)	0 (0)
thoracoabdominal	2 (0.9)	1 (2.6)	3 (2.9)	2 (2.8)	0 (0)
adrenal, abdominal	1 (0.4)	0(0)	4 (3.9)	2 (2.8)	0 (0)
celiac, abdominal	0 (0)	0 (0)	5 (4.9)	1 (1.4)	0 (0)
other, abdominal	2 (0.9)	0 (0)	7 (6.9)	3 (4.2)	2 (6.5)
pelvis	0 (0)	0 (0)	4 (3.9)	5 (6.9)	0 (0)
distant, lymph node(s)	0 (0)	2 (5.3)	10 (9.8)	9 (12.5)	0 (0)
regional, lymph	34 (15.4)	1(2.6)	20 (19.6)	17 (23.6)	4 (12.9)
nodes(s)[#]liver	1 (0.4)	0 (0)	53 (52.0)	35 (48.6)	30 (96.8)
peritoneal cavity	0 (0)	0 (0)	1 (1.0)	2 (2.8)	0 (0)
orbit	0 (0)	0 (0)	9 (8.8)	14 (19.4)	0 (0)
CNS	1 (0.4)	0 (0)	0 (0)	0 (0)	0 (0)
parenchymal, CNS	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
meningeal, CNS	0 (0)	0 (0)	1 (1.0)	0 (0)	0 (0)
skin	0 (0)	0 (0)	17 (16.7)	8 (11.1)	6 (19.4)
lung parenchymal	1 (0.4)	0 (0)	7 (6.9)	6 (8.3)	1 (3.2)
pleura, chest	0 (0)	0 (0)	6 (5.9)	7 (9.7)	0 (0)
mediastinal, chest	0 (0)	0 (0)	8 (7.8)	3 (4.2)	0 (0)
spinal	4 (1.8)	1 (2.6)	9 (8.8)	4 (5.6)	1 (3.2)
other	2 (0.9)	0 (0)	16 (15.7)	6 (8.3)	1 (3.2)
none	175 (79.2)	34 (89.5)	0 (0)	2 (2.8)	0 (0)
Biology					
Unfavorable Histology	0 (0)	11 (28.9)	0 (0)	15 (20.8)	7 (22.6)

Diploid	34 (15.4)[$]	30 (78.9)	0 (0)	62 (86.1)	28 (90.3)
Diploid & UH	0 (0)	3 (7.9)	0 (0)	5 (6.9)	4 (12.9)
Hyperdiploid	173 (33.0)	8 (21.1)	102 (100)	10 (13.9)	3 (9.7)
Hyperdiploid & UH	0 (0)	8 (21.1)	0 (0)	10 (13.9)	3 (9.7)
Response, Cycle 4**					
CR/VGPR	100 (48.5)	15 (45.5)	26 (27.4)	10 (15.6)	7 (25.9)
≤PR	106 (51.5)	18 (54.5)	69 (72.6)	54 (84.4)	20 (74.1)
Response, Cycle 8**					
CR/VGPR	43 (61.4)	20 (74.1)	38 (64.4)	29 (47.5)	20 (76.9)
≤PR	27 (38.6)	7 (25.9)	21 (35.6)	32 (52.5)	6 (23.1)

ABBREVIATIONS: unfav is unfavorable, UH is unfavorable histology, LN is lymph nodes, CNS is central nervous system; CR is complete response; VGPR is very good partial response; PR is partial response.

*573 patients were enrolled on COG A3961. Of these, 94 patients were ineligible and were excluded from this analysis: 53 of the ineligible patients were those empirically treated per A3961 emergently pending tumor biology results, and who subsequently transferred to the correct risk group trial (46 to high, 7 to low) once *MYCN* status, histopathology and ploidy data were known. Other ineligible patients included those who did not meet the minimum biological eligibility criteria for determination of intermediate risk (n=24) or other study criteria (n=17). Of the remaining 479, 15 patients had incomplete biology assessment and are omitted from this table.

[#] Regional lymph nodes were reported on the metastatic sites form and are therefore included in the calculated percentages, but do not constitute metastatic disease for INSS staging purposes.
A few other metastatic sites inconsistent with staging were reported; data here is as reported by treating sites without correction. Due to limited resources of the COG, we focused on data clean-up for data items needed to address the study objectives, and site of metastases were not among them.

[$]Patients over age 1 year had ploidy assessed, but it wasn't used in risk classification for children >1 year.

** Data are presented for the number of cycles are "as-treated", and not the number of cycles initially assigned. 9% of patients were missing response data for end of 4 cycles of chemotherapy with or without surgery; 13% missing data for end of 8 cycles of chemotherapy and surgery. Forty-seven patients with persistent but responsive disease at the end of all prescribed therapy (stage 3, n=4; stage 4,n=40; stage 4s, n=3) received additional therapy, including surgery (n=2), chemotherapy (n=14), radiotherapy (n=2), cis Retinoic Acid (n=3), high dose therapy with autologous stem cell rescue (n=2) or combination therapy (n=6). Eighteen cases were observed only.

Supplementary Table 5. Adverse events of grade 3 and higher, by type of event, biology, and cycles of therapy, in the 479 eligible patients on A3961*

Type of event	Overall cyc 1-4		Overall cyc 5-8		Favorable cyc 1-4		Favorable cyc 5-8		Unfavorable cyc 1-4		Unfavorable cyc 5-8		Overall P-value cyc 1-4 v 5-8
	n*	%	n*	%	n*	%	n*	%	n*	%	n*	%	
	475		260		320		137		140		121		
Hematological	324	**68%**	173	**67%**	218	**68%**	89	**65%**	100	**71%**	84	**69%**	**0.68**
wbc	184	39%	113	43%	119	37%	57	42%	63	45%	56	46%	
anc	280	59%	153	59%	191	60%	75	55%	83	59%	78	64%	
plt	152	32%	75	29%	91	28%	43	31%	60	43%	32	26%	
hbg	200	42%	94	36%	127	40%	46	34%	71	51%	48	40%	
lymph	44	9%	33	13%	31	10%	16	12%	13	9%	17	14%	
Cardiac	20	**4%**	2	**1%**	15	**5%**	2	**1%**	4	**3%**	0	**0%**	**0.011**
rhythm	2	0%	0	0%	2	1%	0	0%	0	0%	0	0%	
hypertension	15	3%	1	0%	11	3%	1	1%	4	3%	0	0%	
hypotension	4	1%	1	0%	3	1%	1	1%	0	0%	0	0%	
Renal	10	**2%**	2	**1%**	6	**2%**	1	**1%**	4	**3%**	1	**1%**	**0.23**
bun	0	0%	1	0%	0	0%	1	1%	0	0%	0	0%	
creatinine	1	0%	0	0%	1	0%	0	0%	0	0%	0	0%	
creatinine clearance	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	
bp systolic	5	1%	1	0%	3	1%	0	0%	2	1%	1	1%	
bp diastolic	5	1%	0	0%	3	1%	0	0%	2	1%	0	0%	
proteinuria	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	
hematuria	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	
GI	38	**8%**	7	**3%**	25	**8%**	3	**2%**	13	**9%**	4	**3%**	**0.004**
stomatitis	7	1%	0	0%	3	1%	0	0%	4	3%	0	0%	
abdominal pain	3	1%	1	0%	2	1%	1	1%	1	1%	0	0%	
constipation	2	0%	0	0%	1	0%	0	0%	1	1%	0	0%	
diarrhea	19	4%	3	1%	13	4%	1	1%	6	4%	2	2%	
nausea-vomiting	15	3%	4	2%	11	3%	2	1%	4	3%	2	2%	
Liver	30	**6%**	6	**2%**	20	**6%**	2	**1%**	9	**6%**	4	**3%**	**0.011**
sgot	10	2%	2	1%	7	2%	1	1%	3	2%	1	1%	
sgpt	15	3%	3	1%	11	3%	2	1%	3	2%	1	1%	
alk-phosatase	2	0%	2	1%	1	0%	0	0%	1	1%	2	2%	
bilirubin	17	4%	1	0%	10	3%	0	0%	7	5%	1	1%	
Infection	61	**13%**	28	**11%**	41	**13%**	11	**8%**	17	**12%**	17	**14%**	**0.48**

*n is the number of patients, not the number of events. A given patient has been counted only one time within a given adverse event and group of cycles, without regard to the number of times that event may have occurred within that group of cycles.

Supplementary Table 6.

List of Participating Institutions for Protocol A3961

4/19/2010 14:01

InstName	LName	FName	City	State	Country
A.B. Chandler Medical Ctr - University of Kentucky	Greenwood	Martha	Lexington	KY	United States
Advocate Hope Children's Hospital	Salvi	Sharad	Oak Lawn	IL	United States
Albany Medical Center	Kanwar	Vikramjit	Albany	NY	United States
Alberta Children's Hospital	Strother	Douglas	Calgary	AB	Canada
Alfred I duPont Hospital for Children	Frantz	Christopher	Wilmington	DE	United States
Baptist Hospital of Miami	Daghistani	Doured	Miami	FL	United States
Baystate Medical Center	Grewal	Satkiran	Springfield	MA	United States
Boston Floating Hospital for Infants & Children	Kretschmar	Cynthia	Boston	MA	United States
British Columbia's Children's Hospital	Bond	Mason	Vancouver	BC	Canada
C S Mott Children's Hospital	Mody	Rajen	Ann Arbor	MI	United States
CancerCare Manitoba	Yanofsky	Rochelle	Winnipeg	MB	Canada
Cardinal Glennon Children's Medical Center	Ferguson	William	St. Louis	MO	United States
Carilion Clinic Childrens Hospital	Atkinson	Mandy	Roanoke	VA	United States
Carolinas Medical Center	McMahon	Daniel	Charlotte	NC	United States
Centre Hospitalier Universitaire de Quebec	Michon	Bruno	Quebec	PQ	Canada
Children's Hospital	Yu	Lolie	New Orleans	LA	United States
Children's Hospital and Research Center at Oakland	Feusner	James	Oakland	CA	United States
Children's Hospital Central California	Crouse	Vonda	Madera	CA	United States
Children's Hospital Medical Center of Akron	Kuerbitz	Steven	Akron	OH	United States
Children's Hospital of Eastern Ontario	Halton	Jacqueline	Ottawa	ON	Canada
Children's Hospital of Michigan	Ravindranath	Yaddanapudi	Detroit	MI	United States
Children's Medical Center Dayton	Broxson	Emmett	Dayton	OH	United States
Children's National Medical Center	Dome	Jeffrey	Washington	DC	United States
Childrens Hospital Los Angeles	Mascarenhas	Leo	Los Angeles	CA	United States
Childrens Hospital of Orange County	Shen	Violet	Orange	CA	United States
Childrens Hospital of Philadelphia	Balis	Frank	Philadelphia	PA	United States
Childrens Hospital-King's Daughters	Lowe	Eric	Norfolk	VA	United States
Childrens Hospitals and Clinics of Minnesota	Bostrom	Bruce	Minneapolis	MN	United States
Childrens Memorial Hospital	Walterhouse	David	Chicago	IL	United States
Cincinnati Children's Hospital Medical Center	Perentesis	John	Cincinnati	OH	United States
Cleveland Clinic Foundation	Tekautz	Tanya	Cleveland	OH	United States
Columbia University Medical Center	Lee	Alice	New York	NY	United States
Connecticut Children's Medical Center	Isakoff	Michael	Hartford	CT	United States
Cook Children's Medical Center	Granger	Meaghan	Fort Worth	TX	United States
Covenant Children's Hospital	Prasannan	Latha	Lubbock	TX	United States
Dana-Farber Cancer Institute	Rodriguez-Galindo	Carlos	Boston	MA	United States
Dartmouth-Hitchcock Medical Center	Chaffee	Sara	Lebanon	NH	United States
Dell Children's Medical Center of Central Texas	Lockhart	Sharon	Austin	TX	United States
Driscoll Children's Hospital	Johnson	M. Cris	Corpus Christi	TX	United States
Duke University Medical Center	Kreissman	Susan	Durham	NC	United States
East Tennessee Childrens Hospital	Pais	Ray	Knoxville	TN	United States
Emory University	Katzenstein	Howard	Atlanta	GA	United States
Florida Hospital Cancer Institute	Selsky	Clifford	Orlando	FL	United States
Geisinger Medical Center	Taylor	Jeffrey	Danville	PA	United States
Georgetown University Hospital	Shad	Aziza	Washington	DC	United States
Greenville Cancer Treatment Center	Stroud	Cary	Greenville	SC	United States
Hackensack University Medical Center	Appel	Burton	Hackensack	NJ	United States
Harbor-University of California at Los Angeles Medical Center	Finklestein	Jerry	Long Beach	CA	United States
Helen DeVos Children's Hospital	Dickens	David	Grand Rapids	MI	United States
Hopital Sainte-Justine	Samson	Yvan	Montreal	QC	Canada
Hospital for Sick Children	Grant	Ronald	Toronto	ON	Canada
Indiana University Medical Center	Fallon	Robert	Indianapolis	IN	United States
Inova Fairfax Hospital	Schorin	Marshall	Falls Church	VA	United States
Janeway Child Health Centre	Hand	John	St. John's	NF	Canada
Johns Hopkins Hospital	Arceci	Robert	Baltimore	MD	United States
Kaiser Permanente Medical Group, Inc., Northern CA	Kiley	Vincent	Roseville	CA	United States
Kalamazoo Center for Medical Studies	Lobel	Jeffrey	Kalamazoo	MI	United States
Kingston General Hospital	Silva	Mariana	Kingston	ON	Canada
Kosair Childrens Hospital	Bertolone	Salvatore	Louisville	KY	United States
Lee Memorial Health System	Salman	Emad	Ft. Myers	FL	United States
Legacy Emanuel Hospital and Health Center	Olson	Janice	Portland	OR	United States
Loma Linda University Medical Center	Bedros	Antranik	Loma Linda	CA	United States
Lutheran General Childrens Medical Center	Kwon	Jong-Hyo	Park Ridge	IL	United States
Maine Children's Cancer Program	Larsen	Eric	Scarborough	ME	United States
Marshfield Clinic	McManus	Michael	Marshfield	WI	United States
Mary Bridge Children's Hospital and Health Center	Louie	Ronald	Tacoma	WA	United States
Massachusetts General Hospital Cancer Center	Weinstein	Howard	Boston	MA	United States
Mayo Clinic	Arndt	Carola	Rochester	MN	United States
McMaster University	Portwine	Carol	Hamilton	ON	Canada
Medical City Children's Hospital	Lenarsky	Carl	Dallas	TX	United States
Medical College of Georgia	McDonough	Colleen	Augusta	GA	United States
Medical University of South Carolina	Kraveka	Jacqueline	Charleston	SC	United States
Memorial Health University Medical Center	Johnston	J.	Savannah	GA	United States
Memorial Healthcare System - Joe DiMaggio Children's Hospital	Hanif	Iftikhar	Hollywood	FL	United States
Mercy Children's Hospital	Jasty	Rama	Toledo	OH	United States
MeritCare Medical Group DBA Roger Maris Cancer Ctr	Kobrinsky	Nathan	Fargo	ND	United States
Methodist Children's Hospital of South Texas	Estrada	Jaime	San Antonio	TX	United States

Michigan State University	Gera	Renuka	East Lansing	MI	United States
Midwest Children's Cancer Center	Kelly	Michael	Milwaukee	WI	United States
Montefiore Medical Center	Ricafort	Rosanna	Bronx	NY	United States
Mountain States Tumor Institute	Chang	Eugenia	Boise	ID	United States
Natalie W Bryant Cancer Center	Kirkpatrick	Gregory	Tulsa	OK	United States
Nationwide Children's Hospital	Termuhlen	Amanda	Columbus	OH	United States
Nemours Children's Clinic - Jacksonville	Sandler	Eric	Jacksonville	FL	United States
Nevada Cancer Research Foundation CCOP	Bernstein	Jonathan	Las Vegas	NV	United States
New York Medical College	Ozkaynak	Mehmet	Valhalla	NY	United States
Newark Beth Israel Medical Center	Kamalakar	Peri	Newark	NJ	United States
Penn State Children's Hospital, Hershey Med Ctr	Neely	John	Hershey	PA	United States
Phoenix Childrens Hospital	Boklan	Jessica	Phoenix	AZ	United States
Presbyterian Hospital	Bryant	Paulette	Charlotte	NC	United States
Primary Children's Medical Center	Barnette	Phillip	Salt Lake City	UT	United States
Princess Margaret Hospital for Children	Cole	Catherine	Perth 6001	WA.	Australia
Rady Children's Hospital - San Diego	Roberts	William	San Diego	CA	United States
Rainbow Babies and Childrens Hospital	Matloub	Yousif (Joe)	Cleveland	OH	United States
Raymond Blank Children's Hospital	Mitchell	Torrey	Des Moines	IA	United States
Rhode Island Hospital	Schwartz	Cindy	Providence	RI	United States
Roswell Park Cancer Institute	Brecher	Martin	Buffalo	NY	United States
Royal Children's Hospital	Ashley	David	Parkville	VIC	Australia
Royal Children's Hospital, Brisbane	Irving	Helen	Brisbane	QLD	Australia
Sacred Heart Children's Hospital	Felgenhauer	Judy	Spokane	WA	United States
Sacred Heart Hospital	Assanasen	Chatchawin	Pensacola	FL	United States
Saint Joseph Children's Hospital of Tampa	Tebbi	Cameron	Tampa	FL	United States
Saint Vincent Hospital	Hill	John	Green Bay	WI	United States
Saint Vincent Hospital and Health Services	Razzouk	Bassem	Indianapolis	IN	United States
San Jorge Children's Hospital	Clavell	Luis	Santurce	PR	United States
Santa Barbara Cottage Hospital	Greenfield	Daniel	Santa Barbara	CA	United States
Saskatoon Cancer Center	Mpofu	Christopher	Saskatoon	SK	Canada
Schneider Children's Hospital	Redner	Arlene	New Hyde Park	NY	United States
Seattle Children's	Hawkins	Douglas	Seattle	WA	United States
Sinai Hospital of Baltimore	Wiley	Joseph	Baltimore	MD	United States
St. Jude Children's Research Hospital Memphis	Furman	Wayne	Memphis	TN	United States
St. Jude Midwest Affiliate	Smith	Stephen	Peoria	IL	United States
St. Mary's Hospital	Gowda	Narayana	West Palm Beach	FL	United States
Stanford University Medical Center	Marina	Neyssa	Palo Alto	CA	United States
Stollery Children's Hospital	Desai	Sunil Jayantilal`	Edmonton	AB	Canada
SUNY Upstate Medical University	Cherrick	Irene	Syracuse	NY	United States
Sutter Medical Center, Sacramento	Lee	Yisheng	Sacramento	CA	United States
Swiss Pediatric Oncology Group - Bern	Ammann	Roland	Bern	NULL	Switzerland
Swiss Pediatric Oncology Group - Lausanne	Beck Popovic	Maja	Lausanne	NULL	Switzerland
Texas Children's Cancer Center at Baylor College of Medicine	Bomgaars	Lisa	Houston	TX	United States
Texas Tech University Health Science Center-Amarillo	Turner	Curtis	Amarillo	TX	United States
The Children's Hospital - Denver, CO	Maloney	Kelly	Aurora	CO	United States
The Children's Hospital at Westmead	McCowage	Geoffrey	Westmead	NSW	Australia
The Childrens Mercy Hospital	Hetherington	Maxine	Kansas City	MO	United States
The University of Chicago Comer Children's Hosp	Cohn	Susan	Chicago	IL	United States
Toledo Children's Hospital	Stein	Dagmar	Toledo	OH	United States
Tulane Univ./Tulane Univ. Hospital and Clinic	Scher	Charles	New Orleans	LA	United States
UCLA David Geffen School of Medicine	Fu	Cecilia	Los Angeles	CA	United States
UMDNJ-Robert Wood Johnson University Hospital	Drachtman	Richard	New Brunswick	NJ	United States
University of Alabama at Birmingham	Reddy	Alyssa	Birmingham	AL	United States
University of Arizona Health Sciences Center	Wittman	Brenda	Tucson	AZ	United States
University of Arkansas for Medical Sciences	Becton	David	Little Rock	AR	United States
University of California San Francisco Medical Center-Parnassus	Goldsby	Robert	San Francisco	CA	United States
University of California, Davis	Ducore	Jonathan	Sacramento	CA	United States
University of Florida	Smith	Amy	Gainesville	FL	United States
University of Illinois	Schmidt	Mary	Chicago	IL	United States
University of Iowa Hospitals & Clinics	Tannous	Raymond	Iowa City	IA	United States
University of Kansas Medical Center	Kumar	Mukta	Kansas City	KS	United States
University of Maryland at Baltimore	York	Teresa	Baltimore	MD	United States
University of Massachusetts Medical School	Keuker	Christopher	Worcester	MA	United States
University of Minnesota Cancer Center	Neglia	Joseph	Minneapolis	MN	United States
University of Mississippi Medical Center Children's Hospital	Megason	Gail	Jackson	MS	United States
University of Missouri - Columbia	Loew	Thomas	Columbia	MO	United States
University of New Mexico	Winter	Stuart	Albuquerque	NM	United States
University of North Carolina at Chapel Hill	Gold	Stuart	Chapel Hill	NC	United States
University of Oklahoma Health Sciences Center	McNall-Knapp	Rene	Oklahoma City	OK	United States
University of Pittsburgh	Ritchey	Arthur	Pittsburgh	PA	United States
University of Rochester	Hackney	Lisa	Rochester	NY	United States
University of Texas Health Science Center	Thomas	Paul	San Antonio	TX	United States
University of Vermont College of Medicine	Homans	Alan	Burlington	VT	United States
University of Wisconsin - AFCH	De Santes	Kenneth	Madison	WI	United States
UT Southwestern Medical Center	Winick	Naomi	Dallas	TX	United States
Vanderbilt Children's Hospital	Kuttesch	John	Nashville	TN	United States
Victoria Hospital	Cairney	Anne	London	ON	Canada
Virginia Commonwealth Univ Health System-MCV	Godder	Kamar	Richmond	VA	United States
Wake Forest University School of Medicine	McLean	Thomas	Winston-Salem	NC	United States
Washington University Medical Center	Hayashi	Robert	St Louis	MO	United States
West Virginia University HSC - Charleston	Chauvenet	Allen	Charleston	WV	United States
William Beaumont Hospital	Main	Charles	Royal Oak	MI	United States
Winthrop University Hospital	Weinblatt	Mark	Mineola	NY	United States
Yale University School of Medicine	Kupfer	Gary	New Haven	CT	United States